An Inaugural Dissertation On Intermittent Fever

By

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of

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On Intermittent Fever.

An Intermittent Fever consists of a succession of Paroxysms between each of which there is a distinct intermission called apyrexia. Intermittents are divided into quotidian, tertian, and quartans; the first returns every twenty four hours, the second with an intermission of forty eight, and the quartan of seventy two hours. The forms of these varieties are also various. The double tertian has one paroxysm every day the paroxysms resembling one another alternately: The double tertian two paroxysms, on one day and one on the next; the double quartan two paroxysms on the first day, and two on the fourth day; the double quartan with a paroxysm on the first day and another on the second day. In the tripple quartan there are three paroxysms every fourth day. The tripple quartan every fourth paroxysm being alike with one returning every day.

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When intermittents prevail in the Spring season they generally assume the tertian type and are of an inflammatory character; in the Autumn they assume the quartan form attended with bilious symptoms

Causes. It appears to be generally acknowledged that the Marsh miasmata arising from the putrefaction of vegetable matter is the most common causes of intermittent Fevers. This observation was first made by Lancisi about the middle of the seventeenth century.

Intermittent fever is not a disease of very warm or very cold climates. Clark and others remark, that it rarely occurs near the equator. It is the opinion of Sir John Pringle that the effluvia arising from marshes of salt and fresh water united are more favorable to the production of intermittents than that of fresh water alone. Intemperance, great fatigue, wearing damp clothes, cold damp

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atmosphere, increase of bile, grief, much anxiety, a watery, poor diet, the suppression of some long accustomed evacuation also produce it. It has been believed that intermittents are communicated by contagion; this hypothesis however is not supported by experience. Relapses frequently occur after the disease has been checked. A disordered state of the stomach and prima via is generally believed to be the proximate cause of intermittent fever.

Symptoms. The paroxysm of an intermittent fever is divided into three different stages, the cold, the hot, and the sweating. Upon the approach of the first, the face becomes pale and the skin constricted, a sense of debility, languor, frequent yawning, sluggishness and loss of appetite. The patient complains of being cold; the pulse is small, weak, and sometimes irregular, the respiration is disturbed and anxious; there is pain in the head, back, and

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extremities. Drowsiness seldom occurs, when it does it resembles apoplexy. The cold stage is partial in some cases, being confined to one or more of the extremities, while in other parts of the body considerable heat is felt, accompanied with cough and great dejection of spirits; the sight and hearing are often impaired. It has been remarked by Senac and Cleghorn that the cold stage is sometimes wanting, the hot occuring first.

In the hot stage, the face is flushed; the tongue is furred, the skin is dry and hot with anxiety great pain in the head, throbbing of the temples, and an increase of sensibility; the pulse is hard, full and regular; the respiration frequent and more free than in the cold stage, and delirium not unfrequently comes on if the attack is violent. When hemorrhagies occur, they generally come on in the hot stage; most generally the blood flows from the nose, sometimes from the lungs,

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uterus, and rectum: When the system is in a full plethoric state, they prove serviceable; but on the contrary when it is much debilitated they are always injurious. Dr. Rush remarks that the hot stage is sometimes so slight as scarcely to be perceived. After sometime the symptoms of the hot stage gradually abate, and a moisture appears first on the forehead, which gradually extends itself over the body in the form of sweat; the respiration becomes more free; the urine deposits a sediment; the thirst and heat of the body abate; the pain in the head and back disappear, and the patient is left in a state of debility. These phenomena generally attend a paroxysm of intermittent fever; but this is not always the case as they prevail to a greater or less extent in different persons and in the same persons at different periods.

Prognosis. In some cases the prostration

of strength

of strength is so great as to destroy the patient on the first attack. Deafness is generally considered favourable; excessive debility of the natural functions indicates great danger. When Intermittents have continued a length of time; they are sometimes converted into a Remittent or continued fever, or lay the foundation of other diseases, as dropsy, & scirrhus of the liver or spleen. When the paroxysms are of long continuance, violent with much delirium or coma we expect a slow and difficult cure; but if the paroxysms are short and their return regular we may expect a speedy recovery. From convulsions and apoplexy, death sometimes takes place during the fever; but never in the sweating stage. When intermittents terminate fatally, death generally takes place in the cold stage.

Appearances on dissection. We generally find

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find inflammation of the prima via, in the spleen, liver, and many of the other viscera and in those who have died in the cold stage, accumulations of blood in the liver and spleen. The omentum, stomach, mesentery are not unfrequently found inflamed and sometimes sphacilated. The pancreas is sometimes enlarged and ulcerated. The brain is sometimes, though rarely inflamed.

Treatment. In the cold stage the patient is to be confined to bed, warm bricks or bottles filled with warm water are to be applied to the extremities, and warm diluent drinks to be freely administered, as sage balm, or linseed tea. When these fail, we must have recourse to stimulants; the most proper are volatile alkali, tinctura opii from twenty five to thirty drops, or sulphuric ether given to the extent of a drachm, either of which may be repeated if necessary. The

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application of a vesicant on the thigh and arm of opposite sides has sometimes succeeded in stopping the paroxysm. When the case is obstinate it has been recommended to administer from two to three grains of Opium either alone or combined with a fourth of a grain of tartarized Antimony or two grains of Ipecacuanha two hours before the paroxysm is expected. An intermittent pain has its seat on the stomach, much good is to be expected from the administration of an emetic before the commencement of the cold stage, by this means we are enabled to remove the morbid cause and consequently prevent its return.

In the hot stage we may give an emetic of antimonial tartar, after the operation of which, we may advise some diaphoretic medicine, as the antimonial powder, spirits of mindererii and camphoricum. When

there is much nausea the effervescent draught or the neutral mixture may be given. If the system refuses to react, the extremities cold and the pulse sinking, we should immediately apply rubefacients with the volatile alkali and opium internally. If the heat in the head is severe, respiration laborious, the pulse full and strong, we must bleed, vomit, and purge: but if these symptoms are not relieved after waiting a reasonable time a blister must be applied to the ~~breast~~ back or temples: cold drink is grateful and often serviceable in the hot stage. When vomiting and purging of bile spontaneously take place in this stage demands are necessary, but if they continue to be severe, opiates must be administered.

Cases rarely occur in which medicine is necessary in the sweating stage. When the fever intermits we should commence as soon

soon as possible with the Peruvian Bark, after the alimentary canal has been evacuated by emetics and purges, venæ section is sometimes necessary. Some stomachs are so irritable as to reject the bark, in such cases it may be combined with Virginia snake root, cloves, nutmeg, or other aromatics, some of which are supposed to increase its powers. If the bark should produce costiveness, a few grains of Rhubarb may be added; but on the contrary if it occasions purging it may be checked by adding Kino or opium. If costiveness should continue any length of time a gentle cathartic will be proper. When the stomach is irritable, the bark must be given by injection, and repeated every three or four hours to the extent of two or three drachms mixed with a mucilage of Gum Arabic and a few drops of tincture opii. The red bark, when pure is decidedly the best. The Watery extract of Bark, which is pre:

prepared

prepared by slow evaporation of the watery infusion, may be given in the dose of ten or fifteen grains every hour during the intermission, either in pills or in solution, with two or three drachms to ℥ss Spt Lavender comp. and ℥viss of water. Of late this medicine has been prescribed by some of the most distinguished practitioners of Philadelphia, who speak of it in the highest terms. The bark has been prescribed in a great variety of forms, but of all these the powder is decided: ly the best. when it agrees with the stomach one or two drachms may be given every ½ hour increasing the dose during the intermission. It is sometimes used externally in cases of debilitated females and children, sprinkled in a waistcoat, and applied round the body. Dr. Rush says when the Bark fails after repeated trials, moderate bleeding will generally prove successful. Where there

is much

is much inflamation or fever we must be cautious in the use of the bark: on the other hand if there is much debility and tendency to typhus, we must commence early with this medicine, and give it in as large doses as the stomach will bear. Sequence or milk is said to be the best means of disguising the taste of this article. The use of the bark should be continued for ten or fifteen days after the disease has been removed. Quassia is used with advantage in the West Indies. A variety of Barks have been substituted for the Peruvian, as wild Cherry Tree (Prunus Virginiana) white Oak, black Alder, chesnut Oak, Coy Wood (Cornus florida), Ingestura and Willow, all of which are very inferior to the Cinchona in its unadulterated state. Dr. Wright has used the bark of the Mahogany Tree with considerable advantage. It is reported

by Dr. Miller that an ounce of ground Peruvian Bark given before the accession of the paroxysm will not only prevent it, but sometimes entirely remove the disease.

In the United States, the Eupatorium Perfoliatum has been used with considerable success, it acts as a tonic and diuretic, it may be given either in the paroxysm or apyrexia.

Kino has been employed as a remedy in the following manner.

℞ Gum Kino ʒij.
Pulv. Gentian ʒfs.
Gum Opii grij. mixed and divided into twelve powders, one to be taken every two three or four hours. Charcoal is given in the dose of one drachm, and repeated every two or three hours. Sulphur has been administered with success, in spirituous liquors, or in milk. In Intermittents the

Sulphate

sulphate of Copper is a valuable remedy, giv: en to the extent of one fourth of a grain com: bined with two of Peruvian Bark repeated four times a day. Scirrhous enlargements of the Spleen and liver sometimes takes place, when Intermittents have continued for a length of time, which may be removed by the use of Mercury, till the mouth is affected if it cannot be taken internally, it must be applied in the form of Ointment, rubbed into the groins. Dropsical swellings which often come on about the termination of the disease, may for the most part be removed by the use of Cremor Tartar in small doses, frequently repeated.

The Saccharum Saturni has been high: ly recommended by Dr. Barton, but is at present not much in repute. Not a little has been said of Arsenic in this dis: ease, given in solution, as directed by Dr. Fowler

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Dr. Fowler, it has proved successful in some obstinate cases of intermittent Fever, and is best adapted to the case of children and delicate women; the dose is from ten to twelve drops for an adult repeated thrice a day during the intermission. It proves more efficacious, when given in conjunction with the Peruvian bark.

The Tela Aranii or Spider's web, has been prescribed instead of opium with success by Professors Physick and Chapman in doses of five grains, repeated every four or five hours: that which is found in cellars and dark places is the best.

Diet. If an inflammatory diathesis exists we must recommend light food, as Panada, Sago, Tapioca and Barley; but in patients of a weak habit, a contrary course must be pursued, wine and animal food may be taken.

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Preventives. The best preventives are a generous diet, comfortable clothing, the use of Bark, or infusion of Quassia once or twice a day, change of air, exercise in the open air, on horseback and in carriages, avoiding every thing that tends to debilitate.